



Cabo Rojo Groundwater Contamination Site

Information about the possibility of vapor intrusion and the potential health effects of chemical vapors in indoor air

This fact sheet will tell you about how chemicals called volatile organic compounds (VOCs) may affect your health by vapor intrusion. This fact sheet tells what the U.S. Environmental Protection Agency (EPA) and the Agency for Toxic Substances and Disease Registry (ATSDR) are doing to protect the health of people in Cabo Rojo from the possibility of vapor intrusion.

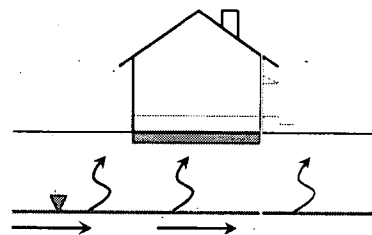
Background

The EPA found low levels of VOCs in some of the Cabo Rojo public water supply wells. The wells pump water from under the ground (groundwater). The EPA asked ATSDR to find out whether the levels of VOCs could harm people drinking the water. ATSDR found that people drinking the water would NOT be harmed because the levels of VOCs are too low.

EPA is working to find where the contamination came from. Businesses that use VOCs or used them in the past, are *potential sources* of the VOC contamination because these substances may have spilled and moved beneath the ground into water.

What is vapor intrusion?

Vapor intrusion is a way that VOCs in the ground or groundwater can get into indoor air. VOC gases, or vapors, can move up from the groundwater into pockets of air underground. Then the vapors can travel through the ground. VOCs can enter homes through cracks in foundations, dirt floors, sump pump pits, utility conduits, floor drains, and damaged or poorly constructed plumbing. Once vapors are in the home, they may not be able to leave if the home is airtight and does not get fresh air. In some cases, the VOCs can build up to harmful levels inside a home.



Is vapor intrusion a problem in Cabo Rojo?

Because VOCs have been found in groundwater in Cabo Rojo, vapor intrusion might be occurring. This is more likely near potential source areas where groundwater contamination is higher. EPA is trying to find out whether vapor intrusion is a problem. In March 2012, EPA sampled indoor air in four businesses that use or used VOCs. EPA also tested for VOCs inside and under nearby schools, homes, and businesses.

The indoor air samples showed VOCs were NOT at harmful levels. But, high levels of VOCs were found underneath some buildings. EPA is continuing to study homes and buildings near these areas.

Even though harmful levels of VOCs in indoor air were NOT found, the groundwater in Cabo Rojo still contains a chemical called tetrachloroethylene (PCE). This is a solvent used in dry cleaning and similar activities. As PCE breaks down in the environment, it can create other chemicals. These chemicals are trichloroethylene, dichloroethylenes, dichloroethane, and other breakdown products. The VOCs at this site also are found in common household products such as paints, paint strippers and thinners, cigarette smoke, aerosol sprays, stored fuels, glues, and solvents.

Will vapor intrusion harm my health?

Based on the available information, VOCs will NOT harm the health of children and adults who spend time in the buildings tested by EPA in Cabo Rojo. No harmful levels of VOCs were found in indoor air of homes and buildings in Cabo Rojo.

Even though no harmful levels were found, ATSDR and EPA are working to find and get rid of vapor intrusion where possible. This will reduce the possibility that VOC levels could be harmful in the future.

How do I know if VOCs are entering my home?

You probably would not notice low levels of VOCs in your home. Whether or not VOCs enter your home can depend on:

- the level of VOCs beneath your home,
- the type of soil under your home,
- the type and condition of your home's foundation, and
- how your home is constructed.

VOCs also can be in your home if you use home products that contain VOCs (such as paints, cleaning products, cigarettes, or cosmetic items). They also can come from outside sources like automobiles.

How can I reduce the risk from VOCs in my home?

The following three tips can help reduce the risk of vapor intrusion and improve the indoor air quality in your home:

- 1) Get more air into your home (increase ventilation). This can keep any VOCs that may enter your home from building up to unsafe levels. Keep windows open or use a fan or air conditioner to bring fresh air into the home.
- 2) Repair cracks or holes in the floor or foundation to keep any VOCs under your home from coming in.
- 3) Use fewer products that contain VOCs (such as nail polish, pesticides, or paint thinners). When you use a product with VOCs, open windows and run a fan. This will reduce VOCs in your home.

How I can learn more?

ATSDR's toll-free information line:

1-800-CDC-INFO

<http://www.atsdr.cdc.gov>

Ana Pomales, MS
Environmental Health Scientist
1650 Arch St, MC HS00
Philadelphia, PA 19103
215-814-5716 - Office
fwa9@cdc.gov